

ABSTRACT

A sense amplifier and associated method comprise a regenerative latch, an input differential pair of transistors coupled to the regenerative latch, and a leakage device coupled to each of the transistors comprising the input differential pair of transistors. The leakage device is adapted to maintain the input differential pair of transistors in an on state during a pre-charge phase. In other embodiments, the sense amplifier includes a clocked buffer coupled to the outputs of the regenerative latch. The clocked buffer provides additional drive current for the sense amplifier and is clocked by a clock signal that controls the regenerative latch. In yet other embodiments, the sense amplifier includes a secondary hold latch coupled to the outputs of the regenerative latch to maintain an output decision for the sense amplifier while other portions of the sense amplifier pre-charge.